## Index

Abscess, metastatic tuberculous, 57–58 for ecthyma, 50 Acetylsalicylic acid (ASA), See Aspirin for Pseudomonas aeruginosa infection, 51 Achilles tendon, 14, 18 for red cell disorders, 71 Acquired immune deficiency syndrome (AIDS), 99 for tropical phagedenic ulcer, 63 drug therapy for, leg ulcers from, 147 for tuberculous leg ulcers, 58 Kaposi's sarcoma and, 134, See also Kaposi's for tularemia, 56 sarcoma for venous ulcers, 46 Acral lick dermatitis, 177-180 for yaws and treponarid, 170, 171t Acrodermatitis chronica atrophicans Anticardiolipin antibodies cancer associated with, 128, 129t in Behcet's syndrome, 104 leg ulcers associated with, 152 detection of, 99-100 Actinobacillus sp., 180 in Sjogren's syndrome, 104 Actinomyces sp., 180 in systemic lupus erythematosus, 99-100 madurae, 158 Anticoagulation, 39, See also Coagulation inhibitors; Actinomycotic mycetoma, treatment of, 159t specific agent Adductor muscles, 17 complications of, 78-79 Adhesive surface, preservation of, 27 Antihypertensive medications, See also specific Adriamycin, 183 agent Age factors, related to leg ulcers, 4 leg ulcers from, 145 AIDS, See Acquired immune deficiency syndrome Anti-inflammatory drugs, nonsteroidal, See also Allergens, leg ulcers and, 22t specific agent side effects of, 97 Allergic reactions, to drugs, See Drugs, allergic Antiphospholipid antibodies, 99 reactions to Alpha-thalassemia, 67, 68 Antiphospholipid antibody syndrome, 103 Aluminum hydroxide, 103 primary, 79-80 Aluminum salts, 28 Antiplatelet agents, See also specific agent Amikacin, 51 in scleroderma leg ulcers, 103 Amphoterecin, amphoterecin B, 159t, 161, 181 Antisepsis, historical perspective, 8 Antiseptics, 22, 23 in blastomycosis, 163 in histoplasmosis, 163 Antitoxin, for diptheria ulcers, 51, 53 Amputation, in diabetic ulcers, 90 Aorto-iliac disease, 31 Amyloid, 91 Arsenical ulcers, 153 Amyloidosis, bullous, 73 Arsenphenamine, 154 Anaerobes, 27 Arteria profunda femoris, See Deep femoral artery cultures, in sickle cell ulcers, 69-70 Arterial circulation assessment of, 32 Anaphylaxis, idiopathic, 145 lower extremities, 31 Anemia, 66 Aneurysm, 36 Arterial insufficiency ulcers, 2 Angiogenesis, 26 clinical manifestations of, 2 Angiosarcoma, 127, 135 healing in, 35 symptoms of, 31-32, 40 postirradiation, 124 Animals treatment of, 46 Arterial pressures, in diabetic ulcers, 88 anthrax from, 54 Corynebacterium pyogenes infection from, 53 Arterial pulses, in venous ulcers, 45 Arterial reconstruction, 42, 46-47 Ankle Arterial system, lower leg, 26 arthritis, 69 Arterial ulcers, 30-31 dysfunction, 93 edema, 44 clinical findings, 31 pressures, 41 diagnosis of, 40-42 ischemic, 2 venous insufficiency ulcers in, 2 Ankylosis, 63 physical findings, 32-33 Anthrax, leg ulcers associated with, 54-55 prevention of, 33 Antibacterial agents, allergenic, 22t prognosis of, 33-34 Antibiotics, 22, See also specific agent symptoms of, 40 treatment of, 24, 34-35, 42 for anthrax for arterial ulcers, 34 Arteries, leg, 15-16 for Corynebacterium pyogenes infection, 53 Arteriography, 7, 42 Arteriosclerosis, 34 for diabetic ulcers, 89 peripheral, ischemic ulcers secondary to, 32 for diptheria ulcers, 53

Arteriosclerosis obliterans

foot ulcers related to, 30, 31, See also Arterial

ulcers

clinical findings, 31

leg ulcers secondary to, 1, 2

Arterio-venous anastomoses, 19

Arterio-venous fistula, 37

causes of, 37

Arteriovenous shunting, 86-87

Arteritis, Takayasu's, 110

Arthritis, See also Rheumatoid arthritis ankle, 69

Articulato genus, See Knee

Ascorbic acid, 71

Aseptic necrosis, 154

Aspirin, 36, 74, 103, 111

side effects of, 97

Atenolol, 145

Atheromatous emboli, 36

Atopics, leg ulcers secondary to, 145

Atrophie blanche, 102, 111

Attenuated yaws, 169

Autografts, keratinocytes, 27

Autoimmune leg ulcers, 92

canine, foot pad, 183-184

collagen vascular diseases, miscellaneous, 103-111,

See also Collagen vascular diseases

lupus erythematosus, 97-101

rheumatoid arthritis, 92-97

scleroderma, 101-103

Autonomic neuropathy, 86-87

Azathioprine, 96, 103, 105, 101, 183

## Bacilli

acid-fast, 56, 59, 60

anthrax, 54, 55

fusiform, 62

Bacillus

anthracis, 54

fusiformis, 62

Bacitracin, 34, 50, 70, 148

Bacteria, role in wound healing, 27

Bacterial cultures, in diabetic ulcers, 89

Bacterial infection, leg ulcers associated with, 55-57

anthrax, 54-55

canine, 180-182

Corynebacterium pyogenes infection, 53

diptheria, 51-53

ecthyma, 49-50

environmental mycobacterioses;

Mycobacterium ulcerans, 58-59

leprosy, 60-62

Mycobacterium marinum infection, 59–60

tropical phagedenic ulcer, 62-63

Bacteroides, 62

fragilis, 70

melaninogenicus, 70

Bandages, bandaging, See also Compression

adhesive, 7-8

additives to, allergenic, 22t

application of, 25f

for decubitus ulcers, canine, 176

historical perspective, 7–8 Basal cell carcinoma

in burn scars, 119, 120–121

chronic stasis ulceration and, 124-125

in epidermolysis bullosa, 130

in immunization scars, 127

plantar ulcers and, 127

radiation dermatitis and, 123

tuberculosis and, 126

Basophil, activation of, 144

Bed rest, for venous ulcers, 38

Behçet's syndrome, leg ulcers in, 104-105

Below the knee amputation, in diabetic ulcers, 90

Bendrofluazide, 145

Benzanthine penicillin, 50

for yaws and treponarid, 170, 171t, 173

Benzoyl peroxide, 148

Betadine, 34

Beta-thalassemia, 67, 68

Biceps muscle, 14

Bismuth, 154

Blacks, skin cancer in, 119-120

Blanching, 33

Blastomyces dermatidis, 163

Blastomycosis, leg ulcers from, 2, 127, 162-163

canine, 184

treatment of, 159t, 163

Blister, 59

Blister plaster, 8

Blood

stagnation of, 37 venous, 11

Blood flow, See Circulation

Blood pressure, systolic, 34

Bones

foot, 14

leg, 13–14

lesions, in yaws, 168, 169

Bromoderma, leg ulcers and, 154-155

Buerger's disease (thromboangiitis obliterans), 61

Bullae, 51

anthrax, 54

in decubitus ulcers, 154

of systemic lupus erythematosus, 100

Burn patients, biological skin equivalent for, 27

Burn scar, 181

cancer development in, 119-121

Burrow's solution, 51

Buruli ulcer, 3

Buschke-Lowenstein tumor, 133, 134

Calamine, 24, 46

Calcinosis

cutaneous, 102

cutis, 103

in dermatomyositis, 103 Calcium channel blockers, 91 Calf erythema induratum, 58 muscles contraction of, 42 relaxation of, 42 Candida, 24 cancer and, 127 Capillaries, lymphostatic dilated, 134 Capillary bed, 26 defect in, 45 modification of, 21 Capillary flow, promotion of, 21 Capillary loops, 19 Captopril, 103 Carbenicillin, 51 Carcinoma, See also specific type of carcinoma lymphatic dissemination of, 137 radiation dermatitis and, 123 Casts decubitus ulcer under, 176 plaster of Paris, 61 Cattle, Corynebacterium pyogenes infection from, 53

Cefsulodin, 51 Ceftazidime, 51 Cell proliferation, leg ulcers from, 66 Cellular immunity, decreased, 22 Cellulitis, 33

treatment of, 34-35 Cephalosporins, 35, 50, 51, 55 Chancre, 160 tuberculous, 56-57 Chemicals, leg ulcers from, 153

Chemotherapeutic agents, See also specific agent leg ulcers from, 154 for tuberculous leg ulcers, 58

Children, See also Neonates Corynebacterium pyogenes infection in, 53 ecthyma in, 49-50

purpura fulminans in, 79 treponarid in, 170 Chlorambucil, 96 Chloramphenicol, 53, 160 in tularemia, 56

Chloropromazine, 154 Chlortetracycline, for yaws and treponarid, 171t

Cholesterol, 40 Chrome holes, 153

Chromoblastomycosis, treatment of, 159t Chromocycosis, leg ulcers from, 161 treatment of, 161-612

Churg-Strauss disease, 108

Cicatrices, frostbite, cancer related to, 121-122 Circulation

assessment of, 32 defects, leg ulcers and, 7, 66 arterial ulcers, 30

stealing of, 31 Cladosporium carionii, 161

Classification of leg ulcers, historical perspective, 4 - 5

Claudication, 31, 33 distance, 31

pentoxyfilline effects on, 35

Clindamycin, 50

Clinical examination, for differential diagnosis of leg ulcers, 2-3

Clofazimine, 105 Clot, 26 inhibition, 78

Coagulation inhibitors, See also Anticoagulation deficiencies of, 78

Coagulopathies, 39 Coagulum, in tropical phagedenic ulcer, 62 Coal-tar paste bandages, 28

Cocaine, leg ulcers from, 154 Coccobacilli, 53

Colchicine, 103 Cold agglutinin disease, 165-166

Cold feet, 31

Cold inflammation, 33

Collagen vascular disease, leg ulcers associated with, 36, 92, 93t, 98, 103-111

Behcet's syndrome, 104-105 dermatomyositis, 103-104 lupus erythematosus, 97-101 mixed connective tissue disease, 104 pyoderma gangrenosum, 105 rheumatoid arthritis, 92-97

scleroderma, 101-103 Sjogren's syndrome, 104 vasculitis, 105-111

Color coding, related to antisepsis, 23 Common digital vein, 17f, 18

Common femoral vein, 37 Common peroneal nerve, 19

Communicating veins, incompetent, in venous ulcers, 44

Complement, components of, in rheumatoid vasculitis, 94

Compression, 21, See also Bandages historical perspective, 7-10

Compression syndromes, in rheumatoid arthritis, 93 Condyloma accuminata, of Buschke and Lowenstein,

133, 134 Condylomata, 172 Condylomata lata, 172

Congenital disorders, thrombosis associated, 78

Connective tissue disease, mixed, 104

Corynebacterium diptheriae gravis, 70

leg ulcers from, 51-53 pyogenes, leg ulcers from, 53

Contact dermatitis, from dressings, 22, 22t

Contact factor, 27

Corticosteroids, 39, See also specific agent for Felty's syndrome, 77-78 leg ulcers from, 147, 154 for lichen planus, 152 for lupus erythematosus, 101 for pyoderma gangrenosum, 105 for rheumatoid vasculitis, 96 Co-trimoxazole, 159t Cotton, 24 Coumadin, 36 Coumarin necrosis, 78-79, 80 Crab yaws, 168 Crepitus, 34 Croton oil, 120 Cryoglobulin(s), hematologic aspects of, 75 Cryoglobulinemia, 36 Type I, 75 Cultural factors, related to leg ulcers, 150

Cutaneous vascular channels, 19

Cyclosporine, 105

Cytokines, 27

Cyclophosphamide, 96, 101, 103, 105, 111

Dapsone, 105 for rheumatoid ulcers, 96 Daughter yaws, 168 Dazoxiban, 103 Debridement of arterial ulcers, 35 of diabetic ulcers, 88-89 use of maggot in, 28 Debrisan, 25 Decubitus ulcer, 153-154 canine, 175-177 Deep femoral artery (arteria profunda femoris), 15 Deep femoral vein, 37 Deep lymphatic vessels, 18 Deep soleus muscle, 14 Deep vein thrombosis, 37 treatment of, 47 Deep venous insufficiency, chronic, 37, 38, 42 cellular changes in, 44-45 clinical findings in, 37, 43-44 treatment of, 45 venous pressures in, 43 Demodicosis, 180, 183

Dermatomyositis, leg ulcers associated with, 33, 103–104 canine, 183
Dermatoses, skin cancer related to, 118–119 erosive and/or scarring dermatoses, 129t, 132–133t acrodermatitis chronica atrophicans, 128 burn scars, 119–121 chronic osteomyelitic cancer, 122–123 chronic stasis ulceration cancer, 124–125 cutaneous infection and secondary cancer, 125–127 discoid lupus erythematosus, 128, 130f

Dermatitis artefacta, 155

epidermolysis bullosa, 128, 130 frostbite cancer, 121–122 lichen planus, 130–131 miscellaneous, 127–128 radiation dermatitis, 123–124 tropical ulcers, 125 KID syndrome, 131 lymphedema, 134 porokeratosis, 131, 133 tylosis, 133 verrucous carcinoma, 133–134 Dermis, 27 Dextrans, 25

Dextrose, 146
Diabetes, 34
Diabetes dermatosis, canine, 184
Diabetic gangrene, 61
Diabetic ulcers, 86
arterial, 42
causes of, 86–88
grading of, 88
investigation of, 88
necrobiosis lipoidica diabetacorum, 90–91
neurotrophic, 1
treatment of, 88–90

neurotrophic, 1
treatment of, 88–90
Diachylon bandage, 9, 10
Diamino-diphenyl sulfone, 160
Digits, lymphatic vessels of, 18
Dihydroxystilbamidine, 159t, 163
Diltiazem, vasculitis leg ulcers from, 145–146
Dimethyl sulfoxide, 179
for canine wounds, 183
Dipheric ulcer, 51–53
Dipyridamole, 74, 103, 111
Discoid lupus erythematosus, cancer associated

with, 128, 129t, 130f
Disseminated intravascular coagulation, 79
Dog limbs, chronic wounds of, 175
acral lick dermatitis, 177–180
nonhealing, 180–182
paw lesions, 182–185
pressure ulcers, 175–177
Donut dressing, 34
Doppler blood pressure determinations, 32, 41
Doppler signal, 32

Doppler signal, 32
Dorsal cutaneous vein, 17f, 18
Dorsal digital vein, 17f, 18
Dorsal foot veins, filling of, 32
Dorsal metatarsal arteries, 17
Dorsalis pedis pulse, absent, 32
Doxycycline, for yaws and treponarid, 171t
Dressings, 21
agents used in

allergenic, 22t
contact dermatitis from, 22, 22t
aims at destroying or inhibiting micro-organisms
on skin surface, 23–24
contra-indications to, 21
cultured keratinocytes as, 27–28
defined, 22

deodorant, 28 in diabetic ulcers, 89 donut, 34 historical perspective, 7-8 honey, 24 hydrocolloid, 24-26 infection counteraction with, 22 non-adherent, 27 requirements for, 26, 26t for venous ulcers, 46 wet, 27 zinc oxide paste bandages, 24 Drug(s) cancer associated with, 133t contact dermatitis from, 22 eruptions, canine, 183 history, 2 leg ulcers related to, 21, 144, 146-147, 154 AIDS and, 147 atopy, 145 corticosteroids, 147 from drugs of abuse, 146-147 hydralazine, 145 levamisole, 147-148 in lupus erythematosus, 36, 100-101 sclerotherapy, 145 self-induced ulcers, 148 treatment of, 148 vasculitis leg ulcers, 145-146 Drug abuse, leg ulcers and, 146-147, 154 Duoderm dressings, 24, 25-26

Echocardiogram, 36 Ecthyma, leg ulcers associated with, 49-50 Ecthyma gangrenosum, leg ulcers from, 51-53 Ectoparasites, 180 Eczema, gravitational, 22 Edema ankle, 44 in anthrax, 54 in arterial insufficiency, 31-32 in chronic deep venous insufficiency, 37, 44 in venous ulcerations, 39 Elastic support, for venous ulcers, 38 Elastoplast, 9 Elderly, wound healing in, 26 Electrodes, transcutaneous oxygen, 34 Electromyography, in polyarteritis nodosa, 107 Electrophoresis, hemoglobin, 70 Elevation, 2 Elliptocytosis, hereditary, 70 Endorphic blockers, 179 Endothelial cells, damage to, 102 by antiseptics, 23 Enterobactericeae, 70 Environmental mycobacterioses, leg ulcers from, Eosinphilia, persistent, 76 Epidemiology of leg ulcers, 4-5

**Epidermis** in anthrax, 55 in yaws, 169 Epidermolysis bullosa, cancer associated with, 128, 129t, 130 Epinephrine, 154 Epithelialization, 26 acceleration of, 27 keratinocytes and, 27-28 Erythema, 33 in cellulitis, 35 necrolytic migratory, canine, 184 Erythema chronicum migrans, 128 Erythema induratum (nodular vasculitis), 58, 109-110, 153 See also Nodular vasculitis Erythromelalgia, 74 Erythromycin, 50, 53 for anthrax, 55 for yaws and treponarid, 170, 171t Eschar in anthrax, 54 removal of, 27 Escherichia coli, 24, 70 Estrogens, 39 Ethambutol, 60 Ethanolamine, 145 Ethoxysclerol, 145 Ethyestrenol, 111 Etidronate sodium, 103 Eumycotic mycetoma, treatment of, 159t Exercise testing, in arterial ulcers, 41 Exotoxin, diptheria bacilli, 51 Exudate, 22

Factitial leg ulcers causes of, 1-2 location of, 2 Feculent humors, 6 Felty's syndrome, leg ulcers associated with, 77f, 77-78, 96-97 Femoral artery, 32 anatomy of, 15 Femoral vein, 17 Femur, anatomy of, 13 Femural trochlea, 13 Fibrillar matrix, 26 Fibrin, 26, 27 Fibrin clot, 26 Fibrin cuff, 20 Fibrinogen, leakage of, 45 Fibrinolysis, defect in, 78, 79 Fibroblasts, destruction of, by antiseptics, 23 Fibrosis, 45 subcutaneous, 69 Fibrous histiocytoma, in burn scars, 121 Fibula, anatomy of, 13

Finger pressure testing, in venous ulcers, 45

absorption of, 24

arterio-venous, 37

Goundou, 168 Gout, 91 Grafting in arterial ulcers, 35, 42 pinch, 71 in scleroderma leg ulcers, 103 in venous ulcers, 46 Grancisella tularensis, 55, 56 Granuflex (Duoderm) dressings, 24, 25-26 Granulation, 45 Granulation tissue, 21, 23, 26, 35 Granules, in mycetoma, 158 Granuloma, tuberculous, 58 Granuloma inguinale, cancer associated with, 126 Granulomatosis, lymphomatoid, 75-76, 108, 109 Granulomatous vasculitis, 105t, 107-109 Gravitational eczema, 22 Great saphenous vein (vena saphena magna), 17, 18, 37

in treponarid, 172 tuberculous, 57-58 from yaws, 169, 170

Hair, diminished, 40

syphilitic, 58, 61

Gumma

Halogens, 23 Hansen's disease, 90 Healing, See Wound healing, Dressings Heart, embolism from, 36 Heat, blood flow and, 30-31 Heliotrope, 103 Hemangioendothelioma, spindle cell, 135 Hematologic associations of leg ulcers, 2, 66, 75-78 coagulation disorders, 78-80 proliferative disorders, 71-75 red cell disorders, nonmalignant, 66-71 Hematopoiesis, extramedullary, 73 Heme, 68 Hemodynamic studies, in arterial ulcers, 40-41 Hemoglobin, synthesis, abnormal, hemoglobinopathies with, 68-70 Hemoglobin A, 68 Hemoglobin F, 68 Hemoglobinopathies, with reduced rates of synthesis, 66-68 Hemoglobinuria, paroxysmal nocturnal, 70 Hemolytic anemia, 70 pyruvate kinase-deficiency, 70 Hemorrhagic infarction of skin, 79 Hemosiderin, 45 Henoch-Schonlein purpura, 106 Heparin, 111 induced thrombocytopenia, 79 Heparin necrosis of skin, 79 Hepatoma, 118 Hereditary sensory neuropathy, canine, 180 Herellia sp., 147 Heroin, leg ulcers from, 146, 154

canine, 182 Flexor digitorum longus muscle, 14, 15f Flexor hallucis longus muscle, 14, 16f Fluocinolone, 179 Follicular disease, canine, 183 Fomites, 167 Fonsecaea compacta, 161 Foot arterial insufficiency ulcers in, 2 arteries of, 15-17 bones and joints of, 13-14 cold, 31 diabetic ulcers in, 86-90 drug-related ulcers in, 145 leprosy ulcers in, 60, 61 lymphatic vessels of, 18 malignant melanoma of, 135 nerves of, 19 sensation, decreased, in diabetic ulcers, 87 veins of, 17 Foot pad, ulceration, canine, 182-183 Footwear, for diabetic ulcers, 89 Foreign bodies, in dogs, 182 Framboesioma, 167 Frostbite cancer, 121-122 Fungal cultures, in diabetic ulcers, 89 Fungal infections canine, 180, 181 leg ulcers caused by, 2 mycotic infections, See Mycotic infections Fungating masses, in leprosy, 61 Fusobacteria, 62

Galvano-puncture, 11 Gangrene diabetic, 61 in polycythemia vera, 74 prevention of, 33 superficial, 33 symmetrical peripheral, 79 in thrombocytosis, 74 Gastrocnemius muscle, 14 Gelatin, 46 Gelatin boot, 9 Genetic defects, associated with thalassemia, 67 Gentamycin, 34, 51, 154 for tularemia, 56 Gilchrist's disease, 162, See also Blastomycosis Globin-chain, synthesis, defect, hemoglobinopathies from, 66-68 Glomerulonephritis, 49 Glucagon-producing tumor, 184 Glucocorticoids, 183, See also Corticosteroids Gluteus maximus muscle, 14 Glycerine, 24 Gold, 77 Gold salts, 183 Gottron's papules, 103

Herpes zoster, 127 Hippocrates, 5, 8, 11 Hippolates pallipes, 167 Histamine, 144 Histiocytes, 151 Histiocytic medullary reticulosis, 72 Histiocytoma, fibrous, 121 Histiocytosis malignant, 72 regressing atypical, 72-73 Histiocytosis X, 73 Histopathology, in treponarid, 172 Histoplasma capsulatum, 163 Histoplasmosis, leg ulcers from, 163 treatment of, 159t, 163 History taking, for differential diagnosis of leg ulcers, 1-2 HIV, Kaposi's sarcoma and, 134 Hoarseness, 172 Honey, 25 bactericidal function of, 24 HPV, 134 Humoral theory related to leg ulcers, 5, 6-7, 8 Hungate tube, 62 Husni procedure, 47 Hutchinson's sign, 135 Hydralazine, 36, 103 leg ulcers from, 145 systemic lupus erythematosus, 100-101 Hydrocolloid dressings, 22, 24-26, 28, 103 fibrinolytic activity of, 26 Hydrostatic pressure, increased, 37 Hyperemia, reactive, 41 Hypereosinphilic syndrome, 76-77 Hyperkeratosis, 28 in yaws, 168, 169 Hyperleukocytosis syndromes, 76 Hypersensitivities, canine, 180 acral lick dermatitis and, 178 Hypertension, venous ambulatory, 43-45 chronic, 20f, 20 Hypertensive ulcers, pain from, 2 Hyperviscosity syndromes, 76

Icthopaste bandages, 10
Idiopathic anaphylaxis, 145
Idiopathic lobular panniculitis, See Weber-Christian disease
Imipenem, 51
Immune-mediated diseases, canine, foot pad ulceration from, 183–184
Immunoglobulins, 94, 99
E (IgE), 144
Infected ulcers, arterial, 32–33, 34
Infection, See also Bacterial infection cutaneous, secondary cancer associated with, 125–127
dressings for, 22

Inflammatory response, 33 Inoculation cutaneous tuberculosis, 56-57 Insect bites, 151 Insulin, leg ulcers from, 154 Intercondylar grooves (femural trochlea), 13 Interdigital dermatitis, canine, 182 Interepithelial pores, 45 Internal saphenous vein, surgery on, historical perspective, 11 Interphalangeal bones, 14 Iodides, in sporotrichosis, 160-161 Iodine, 34 dressings, in venous ulcers, 46 Iododerma, leg ulcers and, 154-155 Ischemic ulcers arterial, 2, 42, See also Arterial ulcers prevention of, 33 secondary to peripheral arteriosclerosis, 32 Ischiatic nerve, 18-19 Isoniazid, 59 in tuberculous leg ulcers, 58

Joints leg, 13–14 lesions, in yaws, 168

Kaposi's sarcoma, 74–75, 127, 134–135 Keratinocytes Keratitis, 131 autografts, 27 cultured, as wound dressing, 27–28 Keratoderma, cancer associated with, 131, 133 Ketoconazole, 159t, 161, 181 KID syndrome, cancer associated with, 131 Knee (articulatio genus) anatomy of, 13 arteries of, 15, 16f

Laboratory tests in arterial ulcers, 40-41 for differential diagnosis of leg ulcers, 3 Lanolin, 39 Large vessel arteritis, 105t Lateral cutaneous nerve (peroneal nerve), 19 Lateral malleolus muscle, 14 Lateral tarsal artery, palpation of, 32 Leg(s), elevation of, in venous ulcers, 45-46 Leg ulcers causes of, 1 historical perspective, 7 differential diagnosis of, 1-3 epidemiology of, 4-5 historical perspective, 4-12 types of, 1, See also specific type of ulcer Legging orthosis, 8-9

Leprosy, leg ulcers associated with, 24, 60, 161

cancer and, 126-127 clinical features, 60-61 differential diagnosis, 61 etiology, 60 neuropathic, 25 treatment of, 61-62

Levamisole, leg ulcers from, 147-148

Lichen planus

cancer associated with, 129t, 130-131 leg ulcers associated with, 152

Ligaments, foot, 13

Ligation, historical perspective, 11

Lincomycin, 50 Linton procedure, 46 Lipoatrophy, 154 Liposarcoma, 135 Liposclerosis, 44, 45 Livedo reticularis, 2, 96

focal, 104 Livedoid vasculitis (segmental hyalinizing vasculitis), 110 - 111

pathogenesis of, 111

in systemic lupus erythematosus, 98, 101

Loboa loboi, 163 Lobomycosis

leg ulcers from, 163-164 treatment of, 159t

Lobular panniculitis, associated with pancreatic disease, leg ulcers from, 152-153

Local ulcer care, historical perspective, 7–8 Lower limbs, See also specific area

anatomy of

arteries, 15-17 bones and joints, 13-14

chronic venous hypertension and, 20f, 20 lymphatic vessels, 18

microvascular system of skin, 19 muscles and tendons, 14-15, 16f nerves, 18-19

veins, 17-18 Lung cancer, 134

Lupus anticoagulant, 99

Lupus erythematosus, leg ulcers associated with, 36, 97-101, See also Systemic lupus erythematosus in lupus panniculitis, See Lupus panniculitis in discoid lupus erythematosus, 128, 129t, 130f

in lupus vulgaris, See Lupus vulgaris

Lupus inhibitor, 36 Lupus panniculitis

> foot ulcers related to, 153 leg ulcers related to, 101, 101f, 153

Lupus profundus, 100, 101f, See also Lupus

panniculitis Lupus vulgaris

cancer associated with, 126

leg ulcers associated with, 56f, 57 Lymph nodes

contact dermatitis and, 22 mycobacterial, 59

in tropical ulcer related cancer, 125

in tularemia, 56

Lymphangiosarcoma, 134

Lymphatic sporotrichosis, cutaneous, 160

Lymphatic vessels, 18 damage to, 44

Lymphedema, 44, 137 cancer associated with, 134

Lymphogranuloma venereum, cancer complicating, 126

Lymphoma, T-cell, 71-72, 75, 76, 136

Lymphomatoid granulomatosis, 75-76, 108, 109

Lymphomatoid papulosis, 72

Maceration, 24

Madurella mycetomi, 158

Maduromycosis, leg ulcers from, 157-160

Maggots, use in wound healing, 28

Malignant degeneration, in tropical phagedenic ulcer, 63

Malignant melanoma, 134, 135-136

burn scars and, 121

chronic stasis ulceration and, 124

irradiation induced, 124 plantar ulcers and, 127

Malingering, 155

Malnutrition, ulcers from, 5, 62

Marjolin's ulcer, 124, 181

Mechanical causes of leg ulcers, 153-155

Medications, See Drugs

Megakaroyocyte, 36 Megestrol acetate, 180

Melanoma, See also Malignant melanoma superficial spreading variant of, 135

Menstrual ulcers, 6

Metabolic causes of leg ulcers, 86-91, See also Diabetic ulcers

Metastatic cancer, affecting leg, 136-137

Metatarsal arteries, 16-17

Methotrexate

for rheumatoid ulcers, 96

side effects of, 97 Methylcholanthrene, 120

Methylodopa, 103

Metronidazole, 28

Microcirculation, cutaneous, decreased, 86

Microvascular system, of skin, 19

alteration of, 20

Minocycline, minocycline hydrochloride, 60, 150

Mixed connective tissue disease, leg ulcers associated with, 104

Mossy foot, 161

Mother yaw, 166, 167-168

Mucous patches, 172

Multiple myeloma, 36

Muscles

blood flow to, 31

leg, 14-15, 16f

Mycetoma, 157, See also Maduromycosis causes of, 158t

treatment of, 159t Mycobacterioses, environmental, 58-59 Mycobacterium balnei, 59 marinum, 59-60 tuberculosis, 56 ulcerans, 33, 58-59 Mycosis fungoides, 136 canine, 184 Mycotic infection deep, leg ulcers caused by, 157 blastomycosis, 162-163 canine, 184 chromomycosis, 161-162 histoplasmosis, 163 lobomycosis, 163-164 maduromycosis, 157-160 sporotrichosis, 160-161 treatment of, 159t subcutaneous, canine, 181 Myeloma, multiple, 36 Myeloproliferative disorders, complications of, 73, 74 Myxedema, 91

Nafcillin, 35 Nail care, 89 Nalmefene, 179 Narcotic antagonists, for acral lick dermatitis, 179 Navicular bone, 14 Necrobiosis, superficial ulcerating rheumatoid, 97 Necrobiosis lipoidica diabatecorum, 90-91 Necrolytic migratory erythema, canine, 184 Necrotic leg ulcers, sclerotherapy induced, 145 Necrotizing venulitis, 105t, 106, 107f Neomycin, 34, 50, 70, 148 Neonates, protein C deficiency in, 78 Neoplasias, See Tumors Nephritis, streptococcal, 50 Nerves, leg, 18-19 Neuroblastoma, 135 Neurodermatitis, 151 Neuroendocrine carcinoma, burn-cell associated, 121 Neurogenic causes of leg ulcers, 155 Neurologic disorders, acral lick dermatitis from, 178 - 179Neuropathic leg ulcers, 150-151 of leprosy, 25 Neurotic excoriations, 155 Neurotrophic ulcers, 2, 87 causes of, 1-2 clinical manifestations of, 2-3 location of, 2 Neutropenia, 77 Neutrophilic dermatosis, acute febrile, See Sweet's syndrome Nickel sulfate, 145 Nicotinic acid, 111 Nifedipine, 111

Nitrates, 103

Nitroglycerin, 91
Nocardia
brasiliences, 160
rosalti, 158
sp., 180
Nodular tuberculid, 58
Nodular vasculitis, 58, 109–110, 153
Nodules
cutaneous T-cell lymphoma, 71
lepromatous, 61
mycobacterial, 59
rheumatoid, 95
Norepinephrine, 154
North American blastomycosis, 162
Numbness, 31

Oculoglandular tularemia, 56 Odor, reduction of, 28 Ointment bases and preservatives, allergenic, 22t Olecranon process, decubitus ulcers, canine, 176 Oncogenes, 119 Oral florid papillomatosis, 133 Orthopedic implants, chronic wounds from, canine, 182 Osteoma ulcer, 69 Osteomyelitis, 2, 35 canine, 182 chronic, cancer related to, 122t, 122-123 diabetic ulcers and, 88, 89 Oxacillin, 35 Oxycrate, 8 Oxygen, dermal pressure of, 34

Pain differential diagnosis of leg ulcers and, 2 perception, loss of, 87 at rest, arterial disease and, 31, 32 in venous ulcers, 45 Pallor, 32, 40 Palma-Dale procedure, 47 Palpation, arterial, 32, 33 Panniculitis, leg ulcers related to, 152-153 Papilloma, yaws, 167–168 Papillomatosis, oral florid, 133 Papules Gottron's, 103 mycobacterial, 59 Papulonecrotic tuberculid, 58 Papulonodules, erythematous, 108, 108f Papulosis, lymphomatoid, 72 Paraffin, 27 Paraproteinemia, 73 Parasitophobia, 155 Partial thromboplastin time (PTT), 79-80 Patch testing, 21 Patella, 13 Patho-physiologic approach to leg ulcers, 7 Pemphigus foliaceous, canine, 183

Penicillamine, 77, 96 Penicillin, 35, 53, 154, 160 for diptheria ulcers, 53 Penicillin G, for anthrax, 55 Penicillin v, 50 Pentamidine, leg ulcers from, 147 Pentazocine, leg ulcers from, 146-147 Pentoxifylline, 35, 91, 111 Perchloride of iron, 11 Perforating ulcers, from leprosy, 60 Peripatellar arterial ring, 15 Peripheral arterial disease, ulcerations of, 33 Peripheral blood flow, decreased, in diabetics, 86 Peripheral neuropathy, 93 in diabetes, 87 Peripheral pulses, assessment of, 32 Peripherally located ulcerations, 2 Perivascular injections, chronic wounds from, canine, 183 Peroneal artery, 16f, 16 Peroneal nerve, See Lateral cutaneous nerve Peroneus brevis muscle, 14 Peroneus longus muscle, 14 pH, lowering of, 25, 28 Phagedenic ulcers cancer related to, 125 tropical, 3, 62-63 Pharyngeal diptheria, 52 Phenformin, 111 Phenobarbital, 154 Phenol, leg ulcers from, 148 Phenylbutazone, 154 Phialophora dermatitidis, 161 pedrosoi, 161 verrucosa, 161 Phlebectasias, 145 Phlebitic ulcers, surgery for, historical perspective, 11 Phlebography, 7 Phlegmasia alba dolens, 7 Photoplethysmography, in venous ulcers, 43 Pigmentation, 2 in deep vein insufficiency, 37 Pinch grafting, in red cell disorders, 71 Pinta, 173 Plantar digital vein, 18 Plantar metatarsal arteries, 16-17 Plantar muscle, 14 Plantar ulcers from leprosy, 60

trophic, 126-127

Plaster(s), 8

Plasma cell, disorders, 73

Plaster bandage, elastic, 9

Platelet activation, 78

Platelet clot, 26

PO<sub>2</sub>, 34

Plaster boot, for venous ulcers, 38-39

Plaster of Paris casts, in leprosy ulcers, 61

Poikilocytosis, 68 Polyarteritis nodosa, 105t, 106-107 classic, 106-107 cutaneous, 106, 107 systemic, 107 Polycythemia vera, complications of, 73-74 Polymyxin, polymyxin B, 50, 70 Poplietal aneurysm, 36 Poplietal lymph nodes, 18 Poplietal muscle, 14 Poplietal pulse, palpation of, 32 Poplietal vein, 17, 37 Poplietal vessels, 19 Porokeratosis, cancer associated with, 131, 133 Posterior cutaneous nerve, 18 Post-partum venous thrombosis, 7 Posture, pain and, 2 Potassium iodide, 159t, 181 in sporotrichosis, 160-161 Potassium permanganate, 63 Prazosin, 103 Prednisone for idiopathic lobular panniculitis, 152 leg ulcers from, 147 Pressure leg ulcers from, 153 relief of, over decubitus ulcers, 176 Pressure sores, classification of, 176-177 Pressure ulcers, canine, 175-177 Procainamide, 36 Procaine penicillin, for tropical phagedenic ulcer, 63 Propranolol, 146 Propylthiouracil, leg ulcers from, 146 Prostacyclin, 79, 96 Prostaglandin, 103  $E_1, 105$ Protein(s), anti-clotting, 39 Protein C, 78 deficiency, 78, 79 Protein Ca, 78 Protein S, 80 deficiency, 78-79 Proteolytic enzyme, 26 Proteus mirabilis, 147 Pseudoepitheliomatous hyperplasia, 61 Pseudomonas, 89, 180 aeurigonsa, 70 infection, leg ulcers from, 50-51 septicemia, 50 sp., 180 Psychodermatosis, canine, 177-180 Puffy foot syndrome, 147 Pulmonary embolism, 37 Pulses, assessment of, 32 Pumps, mechanical, 39 Purpura fulminans, 78, 79 Henoch-Schonlein, 106 Purpuric edges to ulcer, 2 Pustule, mycobacterial, 59

Pyoderma(s), 50

Pyoderma gangrenosum, leg ulcers associated with, 75, 97, 105

Pyruvate kinase-deficiency hemolytic anemia, 70

Quadriceps muscle, 13 Quinine, leg ulcers from, 146 Quinolones, 51

## Race

malignant melanoma and, 135 skin cancer and, 119-120 Radiation, leg ulcers from, 155

Radiation dermatitis, cancer related to, 122t, 123-124, 127

Raynaud's disease, 61

Raynaud's phenomena, 102

Recalcitrant leg ulcerations, associated with Behcet's syndrome, 104, 105

Recanalization, in deep venous thrombosis, 47 Red blood cell

disorders, non-malignant, 66-71 pentoxifylline effects on, 35 sickling, 68

Rest, for leg ulcers, 2 historical perspective, 8, 11

Rest pain, 31, 32 Reticulohistiocytosis, 73 Rhabdomyosarcoma, 135

Rheumatoid arthritis extra-articular complications of, 77f, 77, 93 leg ulcers associated with, 36, 92-97

treatment of, 9-97 Rheumatoid factor, 95 Rifampicin, 160 Rifampin, 105

in mycobacterial infections, 59, 60 in tuberculous leg ulcers, 58

Ring finger, radiation dermatitis of, 124

Rubor, 32, 33, 40

Salicylates, See also Aspirin side effects of, 97 Salmonella shigella, 24 Saphenous vein, 17-18, 37

ambulatory venous hypertension and, 43

Sarcoidosis, 109

Sarcoma, 57, 135, See also specific type of sarcoma chronic stasis ulceration and, 124 Kaposi's, 74-75, 127, 134-135 radiation dermatitis and, 124

Sarcomatous degeneration, of burn scars, 121 Scaling, 28, 33

Sears

cancer related to, See Dermatoses, skin cancer related to

of drug abuse, 147

Scleroderma, leg ulcers associated with, 36, 101-103

Sclerosis

cutaneous, 101 systemic, 102

Sclerotherapy, 11

leg ulcers associated with, 145

Scorbutic ulcers, 5

Scrofuloderma, 57

Segmental hyalinizing vasculitis, See Livedoid

vasculitis

Self-medication, allergenic, 22t Self-mutilation, leg ulcers related to, 155

with drugs, 148

Semitendineus muscles, 14

Sensory impairment canine, 180

treatment of, 90 Sensory nerves, foot, 19

Serological tests in syphilis, 172

in yaws, 170

Sex distribution, of leg ulcers, 4 Short saphenous vein, 37

Sickle cell ulcers, 68-70

diagnosis and treatment, 70-71 Silver sulfadiazine, 51

Sinus tract, canine, 162

Sjogren's syndrome, 99 leg ulcers associated with, 104

blood flow to, 31

breakdown, 33 changes, in chronic deep vein insufficiency, 44 diseases

leg ulcers related to, 151

from yaws, 169 grafting, See Grafting

infarction, sickle cell ulcers from, 69 microvascular system of, 19, 20

Skin cancer

dermatoses-associated, See Dermatoses, skin cancer related to

metastatic, 136-137

not associated with prior dermatoses (de novo/ primary)

lymphoma, 136

malignant melanoma, 135-136

sarcomas, 134-135

systemic cancers, 136

Small saphenous vein (vena saphena parva), 17-18

Small vessel disease, 34, 88

Small vessel syndrome, causes of, 35-36

Smoking, vascular response to, 86

Snail tract ulcers, 172

Sneddon's syndrome, 80, 99

Soaking, for infected ulcers, 34

Social factors, related to leg ulcers, 150

Sodium, 181

Sodium hydroxide, leg ulcers from, 148

Sodium salicylate, leg ulcers from, 145

Soft tissue tumors, 135

Sonogram, 36 Spherocytosis, hereditary, 70 Sphygmomanometer, 41 Spina bifida, leg ulcers associated with, 15 Spindle cell hemangioendothelioma, 135 Spindle cell malignancies, radiation dermatitis and, 124 Spirochetes, 62 Splenomegaly, 77 Sporothrix schenckii, 160, 161 Sporotrichosis, leg ulcers from, 2, 160-161 treatment of, 159t, 160-161 Squamous cell carcinoma, 5, 6, 57, 61 in burn scars, 119-120, 121 chronic stasis ulceration and, 124 in discoid lupus erythematosus, 128 granuloma inguinale and, 126 in immunization scars, 127 KID syndrome and, 131 lichen planus and, 130, 131 osteomyelitis associated, 122t, 122-123 plantar ulcers and, 127 porokeratosis and, 131, 133 radiation dermatitis related, 123 in surgical scars, 127 tropical ulcers and, 125 tuberculosis and, 126 Standard of living, leg ulcers and, 5, 6 Staphylococcus, 180 aureus, 34, 69, 70, 147 ecthyma from, 49, 50, 51 intermedius, 180 Stasis dermatitis, 37, 44 treatment of, 39 in venous ulcers, 45 Stasis ulcers, 1 chronic cancer related to, 124-125 clinical manifestations of, 2 pain from, 2 Stenosis, in arterial ulcers, 41 Steroids, See Corticosteroids Stilbamidine, for blastomycosis, 163 Streptococci, ecthyma from, 49 Streptococcus, 53 pallitierii, 158 somaliances, 158 Streptomycin for anthrax, 55 for tuberculous leg ulcers, 58 for tularemia, 56 Striae, Wickham, 152 Stripping operation, 11 Subcutaneous tissue changes, in chronic deep vein insufficiency, 44 circulation to, 31 Sulfadiazine, 183 Sulfamethoxazole, 59, 60, 183

Sulfonamide, for mycosis, 158, 159t

Sulfones, 96

Sulfuric acid, 153

Superficial lymphatic vessels, 18 Superficial ulcerating rheumatoid necrobiosis, 97 Superficial venous insufficiency, chronic, 42–43 Suppuration, 34 Supportive stockings, for venous ulcers, 45, 46 Suppuration, 8 Sural triceps, 14 Surgery, for leg ulcers for arterial ulcers, 35 for diabetic ulcers, 90 historical perspective, 11 for trophic pad ulcers, canine, 185 for venous ulcers, 46-47 Surgical scars, cancer associated with, 127 Sweating, loss of, 87 Sweet's syndrome, 75 malignancy-associated cases, 75 Syphilis cancer and, 127 endemic, 170-173, See also Treponarid tertiary, tabes dorsalis and, 150-151 Syringomyelia, leg ulcers associated with, 151 Systemic lupus erythematosus, 145 canine, foot pad ulcerations from, 183 leg ulcers associated with, 97-101 treatment of, 101

T-cell lymphoma, 71, 75, 76 cutaneous, 71, 136 peripheral, 71–72 Tabes dorsalis, 150-151 Takayasu's arteritis, 110 Talc, 27 Talocrural articulation, 13 Talus, 13, 14 Tarsus, 14 Temperature blood flow and, 30-31 toe. 34 Tendons, leg, 14-15, 16f Tetracycline, 160, 170 for anthrax, 55 for tropical phagedenic ulcer, 63 for tularemia, 56 Thalassemia, 68 diagnosis and treatment, 70-71 genetic defects occurring in, 67 leg ulcers in, 67-68 Therapy, See Treatment of leg ulcers Thermal dimorphic fungus, 163 Thermally induced scars, See Burn scars Thigh bones and joints of, 13 muscles and tendons of, 14-15, 16f nerves of, 18 veins of, 17 Thrombin, 76 Thromboangiitis obliterans (Buerger's disease), 61

Thrombocytopenia, heparin-induced, 79

Thrombocytopenia purpura, thrombotic, 79 Thrombocytosis complications of, 74 essential, 36 primary, 74 Thrombophlebitis, 37 in Behcet's syndrome, 104 Thrombosis, venous, 37 Thrombotic thrombocytopenia purpura, 79 Tibia, 13, 14 Tibial nerve, 19 Tibial pulse, assessment of, 32 Tibialis posterior muscle, 14, 16f Tissue intelligence, 180, 182 Tobramycin, 51 Toes, dermatophytosis, 33 Topical therapy, in diabetic ulcers, 89 Tourniquet testing in deep vein insufficiency, 38 in venous ulcers, 45 Trauma leg ulcers from, 1-2 sickle cell, 69 venous, 44 prevention of, 71 skin cancers induced by, 127-128 Treatment of leg ulcers, See also specific type of ulcer; specific therapy historical perspective local ulcer care, 7-8 rest, 11 surgical, 11 Treponarid clinical features of, 170, 172 defined, 170 etiology of, 170 transmission of, 170 treatment of, 171t, 173 Treponema pallidum, 166, 170, 172 pertenue, 166 vide supra, 170 vincenti, 62 Treponematoses, 166 pinta, 173 Treponemes, 169 human, classification of, 167t Triamcinolone, leg ulcers from, 154 Triglycerides, 40 Tri-iodide solution, 34 Trimethoprim-sulfamethoxazole (TMPS), 59, 60, 183 Trimethoprim-sulfadizaine, 183 Trophic ulcers, 151 foot pad, canine, 184-185

from leprosy, 60

cancer related to, 125

clinical manifestations of, 3

phagedenic, 62-63

Tropical ulcer, 22

plantar, cancer associated with, 126-127

predisposing factors for, 125
Tuberculosis
cancer associated with, 126
leg ulcers associated with, 56–58
Tuberculosis cutic colliguativa, 57
Tularemia, leg ulcers associated with, 55–56
Tulle Gras, 27
Tumors, See also specific type of tumor canine, 184
cutaneous, 181–182
Tylosis, cancer associated with, 133
Tyrosinemia, congenital, canine, 184

Ulcer, defined, 26
Ulcer bed, 46
necrosis in, 33
Ulcer osteoma, 69
Ulceroglandular tularemia, 55
"Ulcers improper to be healed," 6-7
Ultraviolet light, skin cancer and, 126
Uncomplicated ulcer, 3
Unna boot, 9
in venous ulcers, 46
Urticaria, 144

Vaccination, anthrax, 55 Vaccination scars, cancer in, 127 Vaccinia virus, 127 Valves, venous, 20, 37 destruction of, 43 Varices, 6 Varicose veins, 7, 42 blood flow in, 32 in deep vein insufficiency, 38 leg ulcers associated with, 5, 6f treatment, surgical historical perspective, 11 stripping, 39 Varicosities, in venous ulcers, 45 Varicous ulcer, 7 Vascular abnormalities, in scleroderma, 102 Vascular channels, cutaneous, 19 Vascular leg ulcers arterial, See Arterial ulcers in mixed connective tissue disease, 104 scleroderma associated, 102-103 small vessel syndrome, 35-36 venous, See Venous ulcers Vasculitides, 92 Vasculitis, 75, 105 classification of, 105 granulomatous, 105t, 107-109 leg ulcers associated with, 93 clinical manifestations of, 2 from drugs, 145-146 leukocytoclastic, 96 livedoid (segmental hyalinizing vasculitis), 98, 101,

110-111

leukocytoclastic, 104 lupus-associated, 98, 101 necrotizing, 98 nodular, 109-110, 153 rheumatoid, 93, 94-95, 96 Vasoconstriction arteriolar, 20 smoking and, 86 Vasodilating agents for arterial ulcers, 35 for scleroderma leg ulcers, 103 Vasodilation test, 34 Vasopressin, 154 Veillonella sp., 62 Veins, leg, 17-18 valves of, 20, 37, 43 Vena saphena parva, See Small saphenous vein Vena saphena magna, See Great saphenous vein Veneral disease, 16 Venography, 45 Venous blood, coagulation of, 11 Venous dilatation, 43, 44 Venous drainage, anatomy of, 37 Venous filling time, 42 Venous hypertension ambulatory, 43-45 chronic, anatomy of, 20f, 20 Venous insufficiency, 2, 37 deep, See Deep venous insufficiency rheumatoid arthritis ulcers and, 93, 94-96 treatment of, 46 ulcers of, 1 Venous pressure curves, in venous ulcers, 42, 43f

Venous reconstruction, 47 Venous thrombosis, 7, 37 post-partum, 7 Venous ulcers, 7, 37 anatomic factors, 37 clinical findings in, 38 diagnosis of, 42 healing time, 39 historical perspective, 5-6 pathogenesis of, 42-43 prevention of, 45, 46 treatment of, 38-39 non-operative, 45-46 operative, 46-47 venous reconstruction, 47 zinc oxide for, 24 Venules, leaking, 22

Venulitis, necrotizing, 105t, 106, 107f

Verrucous carcinoma, 133-134

candidial infection and, 127 in lichen planus, 131 trophic plantar ulcer and, 126 Vesicle anthrax, 54 in ecthyma, 49 Vesiculopostule, in ecthyma, 49 Vibrio cholera, 24 Viscopaste, 9 Vitamin K, 798

Waldenström's macroglobulinemia, 75 Warfarin, leg ulcers from, 154 Weber-Christian disease (idiopathic lobular panniculitis), leg ulcers associated with, 152 Wegener's granulomatosis, leg ulcers associated with, 107-109 Welsch flannel, 9 Werner's syndrome, 124 Wetting agents, antiseptic, 23t, 23 White clot syndrome, 79 Whitfield's ointment, 28 Wickham striae, 152 Wine, 8 Wound dressing, See Dressings Wound healing future advances in, 26-27 odor and, 28 phases of, 26-27 use of maggots and debridement in, 28

X-rays, skin cancer and, 123–124, 126 Xanthogranuloma, necrobiotic, 73 Xanthoma disseminatum, 73

Yaws, 61, 127 clinical features of, 167–169 defined, 166 diagnosis of, 169–170 etiology of, 166–167 transmission of, 167 treatment of, 170, 171

Zinc oxide, 46 gelatin paste, 9 paste bandages, 24 Zinc sulfate, in red cell disorders, 71 Zinc tape, for leprosy ulcers, 61–62

